

ABSTRACT

There are disclosed an exhaust emission control system including an internal combustion engine, a filter, and an exhaust pipe, a method of manufacturing a filter suitable for the system, and a method of calculating a pressure loss. The system comprises combustion means for intermittently burning particulate matters arrested by the filter, the filter includes porous partition walls extending from one end face to the other end face thereof, and a large number of through channels partitioned by the partition walls, predetermined through channels are sealed at either of the end faces, and assuming that a partition wall thickness is $(X) \mu\text{m}$, and the number of through channels per unit area in a cross section vertical to a longitudinal direction of the through channels is (Y) cells/cm², X and Y come within a range surrounded by straight lines connecting points A1, B1, C1, and D1 in this order in FIG. 1 in the exhaust emission control system.

There are provided the exhaust emission control system, the method of manufacturing the filter, and the method of calculating the pressure loss by the filter with good accuracy in which a temperature gradient produced in the filter at the time of regeneration is suppressed while suppressing a rise of the pressure loss by the filter and which are accordingly superior in reliability.